

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* WERNER HOLZL and MARCEL SCHNYDER

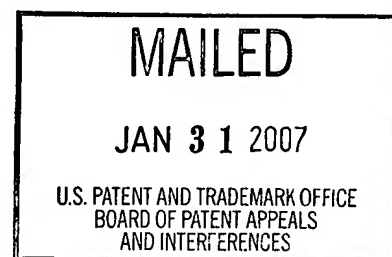
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Appeal 2006-2655  
Application 10/750,810  
Technology Center 1600

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ON BRIEF

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Before MILLS, GRIMES, and LEOVITZ, *Administrative Patent Judges*.

LEOVITZ, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This appeal involves claims to personal care and oral compositions. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 134. We affirm.

**BACKGROUND**

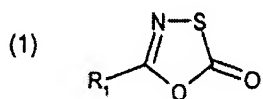
The instant application describes the use of oxathiazolones of formula (1) as antimicrobial ingredients. Specification 1, 5. The compounds are said to be active against bacteria, yeasts, and molds. *Id.* They are described as suitable for use in personal care preparations and cosmetics, including shampoos, deodorants, and oral compositions. *Id.* at 5 to 9. They are also

said to be useful in household and all-purpose cleaners and for the antimicrobial treatment of wood and leather. *Id.* at 10.

## DISCUSSION

Claims 18 and 19 are pending and on appeal. Br. 2. Claims 11-13 and 17 are withdrawn from consideration. *Id.* Claims 18 and 19 read as follows:

18. A personal care preparation, comprising  
from 0.01 to 15 % by weight, based on the total weight of the  
composition, of a compound of formula



wherein

R<sub>1</sub> is C<sub>1</sub>-C<sub>16</sub>alkyl, C<sub>2</sub>-C<sub>16</sub>alkenyl or C<sub>5</sub>-C<sub>8</sub>cycloalkyl, each unsubstituted or substituted by halogen, -CN, -NO<sub>2</sub>, -C=O, -C=S, -NR<sub>2</sub>, -OR<sub>3</sub>, -SR<sub>4</sub>, -SO<sub>2</sub>R<sub>5</sub>, -COOR<sub>6</sub> or by a 1,3,4-oxathiazol-2-one radical;

R<sub>2</sub> and R<sub>3</sub> are each independently of the other hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; C<sub>6</sub>-C<sub>10</sub>aryl, or acyl;

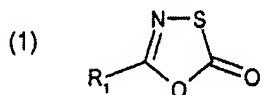
R<sub>4</sub> is hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl;

R<sub>5</sub> is C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl; and

R<sub>6</sub> is hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl,

and a cosmetically tolerable adjuvant.

19. An oral composition, comprising  
from 0.01 to 15 % by weight, based on the total weight of the  
composition, of a compound of formula



wherein

R<sub>1</sub> is C<sub>1</sub>-C<sub>16</sub>alkyl, C<sub>2</sub>-C<sub>16</sub>alkenyl or C<sub>5</sub>-C<sub>8</sub>cycloalkyl, each unsubstituted or substituted by halogen, -CN, -NO<sub>2</sub>, -C=O, -C=S, -NR<sub>2</sub>, -OR<sub>3</sub>, -SR<sub>4</sub>, -SO<sub>2</sub>R<sub>5</sub>, -COOR<sub>6</sub> or by a 1,3,4-oxathiazol-2-one radical;

R<sub>2</sub> and R<sub>3</sub> are each independently of the other hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; C<sub>6</sub>-C<sub>10</sub>aryl, or acyl;

R<sub>4</sub> is hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl;

R<sub>5</sub> is C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl; and

R<sub>6</sub> is hydrogen; C<sub>1</sub>-C<sub>5</sub>alkyl; or C<sub>6</sub>-C<sub>10</sub>aryl,

and an orally tolerable adjuvant.

*Obviousness under 35 U.S.C. § 103*

Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as obvious over Muhlbauer<sup>1</sup> in combination with Kaminski,<sup>2</sup> Lang,<sup>3</sup> or Blank.<sup>4</sup>

Answer 3.

Muhlbauer describes substituted oxathiazole-2-one compounds and their preparation. Muhlbauer at 1, ll. 6-7. The compounds can be used as fungicides (*id.* at 3, l. 11), the same activity<sup>5</sup> described in the instant application for the formula (1) compounds recited in claims 18 and 19. The Examiner indicates that Muhlbauer (at 3, ll. 7-14; Examples 1-3 and 9; and claims 13-16) teaches compounds which fall within the scope of claims 18

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<sup>1</sup> Muhlbauer et al. (Muhlbauer), GB 1,079,348, issued April 20, 1966. Also referred to in the Answer as "Muehlbauer."

<sup>2</sup> Kaminski et al. (Kaminski), U.S. Pat. 4,115,588, issued Sep. 19, 1978.

<sup>3</sup> Lang et al. (Lang), U.S. Pat. 4,772,689, issued Sept. 20, 1988.

<sup>4</sup> Blank, U.S. Pat. 4,847,088, issued Jul. 11, 1989.

<sup>5</sup> The specification characterizes the oxathiazolones of formula (1) as having "antimicrobial action" against bacteria, yeast and molds. Specification 5. Yeast and mold are fungi. *The Random House Dictionary of the English Language* 859, 1526 (1968). A compound having antimicrobial action against fungi can also be described as a "fungicide." *Id.* at 535.

and 19, and which also possess fungicidal properties. Answer 3-4. Each of Kaminski, Lang, and Blank are cited for teaching “that it is known in the art to incorporate fungicidal agents into various compositions including cosmetic preparations such as mouthwashes, shampoos, [and] soaps” for this purpose. *Id.* at 4. The Examiner concludes:

Based on the teachings of the prior art and the level of skill of the ordinary artisan in the cosmetic art, it would have been obvious to the skilled artisan at the time of the present invention to utilize the oxathiazole derivatives taught by Muhlbauer in the compositions taught by Kaminski, Lang and Blank with the reasonable expectation of preventing the contamination and deterioration of said compositions. The motivation would be based on (a) the teachings of Muhlbauer that said oxathiazole derivatives have fungicidal properties and (b) the knowledge in the cosmetic art that antimicrobial agents prevent contamination and deterioration of cosmetic products.

Answer 4.

The Examiner also states that Muhlbauer teaches a fungicidal composition containing acetone and the art teaches various fungicidal acceptable carriers including water and acetone. Based on the teachings of the prior art and the level of skill of the ordinary artisan in the art, the utilization of the compounds taught by Muhlbauer with carriers such as acetone and water would have been obvious to the skilled artisan in the art at the time of the present invention because both carriers are known to be fungicidally acceptable carriers.

Answer 6.

Appellants do not challenge the Examiner’s finding that Muhlbauer describes compounds within the scope of claims 18 and 19. *See* Br. 3: ll. 1-2. However, they assert that there is no teaching in the cited prior art that a fungicidal oxathiazole-2-one derivative of Muhlbauer “could be safely

applied to a human body, i.e., used in a personal care compositions as claimed in claim 18, much less possibly ingested in oral compositions as claimed in claim 19.” Br. 5 and 8-9. They also argue that the acetone solution described in Muhlbauer could not safely be applied to a human body, and provide evidence that it is not cosmetically acceptable, including a data sheet that “acetone is a target organ and reproductive toxin.” Br. 6.

An obviousness determination under 35 U.S.C. § 103 requires consideration of “the scope and contents of the prior art” in the context of the level of skill of the person of ordinary skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966). The Examiner’s rejection of claims 18 and 19 is based on the finding that the skilled worker’s level of skill would have made it routine for a person of ordinary skill in the art to have added an antimicrobial agent, such as the fungicide disclosed in Muhlbauer, to personal care and oral compositions. Answer 4. For this reason, the Examiner concludes that the claimed subject matter would have been obvious to the ordinary skilled worker. After reviewing the record before us, we find that the Examiner’s conclusion is supported by the totality of the evidence.

As asserted by the Examiner, the cited prior art indicates that the fungicides and other antimicrobial agents were considered “customary additives” in personal care and oral formulations. *See Lang*, col. 3, ll. 37-44. *Lang* states that fungicides can be added to its hair treatment composition, but – presumably because they were well-known – did not find it necessary to specify nor list any particular fungicidal compounds. *Blank* also teaches that antimicrobial agents were widely used to prevent

“microbiological contamination and deterioration of products, materials, and systems.” Col. 1, ll. 11-13. Based on these disclosures, we conclude there is sufficient evidence that the choice of a particular fungicide to utilize in a personal care or oral preparation is the type of selection a skilled worker would have routinely made at the time the invention was made.

Accordingly, we find that the Examiner has established a prima facie case of obviousness under 35 U.S.C. § 103 of the claimed composition comprising an oxathiazole-2-one compound in combination with a cosmetically tolerable (claim 18) or orally tolerable (claim 19) adjuvant.

We do not find it significant that at least some of Muhlbauer’s compounds have agricultural applications as pointed out by Appellants.<sup>6</sup> Br. 3, 5. Blank describes the “versatility” of a single class of antimicrobial agents (quaternary ammonium compounds), describing them for a wide range of applications, e.g., in treating aquarium filters, plants, and fabrics, and in paper substrates, wet wipe towelettes, and surgical dressings and bandages. Col. 1, l. 20 to col. 2, l. 4. Thus, antimicrobial agents of the same compound class were known in the prior art to have both agricultural (e.g., plants) and personal care (e.g., wet wipe towelettes) applications.

Appellants also argue that the compounds described in Kaminski, Blank, and Lang are “entirely different class[es] of chemicals” and therefore

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<sup>6</sup> Appellants state that Muhlbauer discloses that its compounds “can be used directly as *agricultural* fungicides.” Br. 5. We do not agree. Muhlbauer states that its compounds “can be used directly as fungicides.” Muhlbauer at 3, l. 11. They describe the activity of certain of its compounds against *Corticium rolfsii* (*id.* at 3, ll. 14-25), which apparently is a soil fungus. See “Dissertation abstract” cited at Br. 5.

would not have been considered “interchangeable with respect to their use in personal care . . . or oral care compositions.” Br. 7-8. In our view, this evidence points to the opposite conclusion. As discussed *supra*, antimicrobial agents, including fungicides, were in wide use to prevent products from deterioration. In teaching that bacteriocides and fungicides are customarily added to hair preparations, Lang does not indicate a preference for any structure or class of chemicals. Col. 3, ll. 40-44. Blank teaches that its compounds can be used to treat carpet, fabrics, hard surfaces, wrappers for soaps, and papers and substrates for food. Col. 9, ll. 1-14. Thus, a teaching that a fungicide of a particular chemical class was useful for one application would not have been understood by the skilled worker to preclude its use for other, unrelated applications.

Appellants also argue that the cited prior art is silent on the issue of whether the oxathiazole-2-one derivatives of Muhlbauer “could safely be incorporated into” personal or oral care compositions which are applied to the human body (Br. 5), apparently making it a nonobvious choice to add to the claimed compositions. However, they have provided no evidence that the skilled worker would have concluded that Muhlbauer’s oxathiazole-2-one derivatives are unsafe for compositions to be applied to the body. Appellants do not point to any disclosure in Muhlbauer, Kaminski, Lang, or Blank that would have led the skilled worker to doubt that these compounds could be utilized in a personal care or oral care product. Arguments of counsel cannot take the place of evidence lacking in the record. *Estee Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 593, 44 USPQ2d 1610, 1615 (Fed. Cir. 1997).

In response to the Examiner's argument (Answer 6) that it would have been obvious to the skilled worker to have combined an oxathiazole-2-one derivative of Muhlbauer with an acetone carrier, Appellants assert that, because of its toxicity, acetone would not have been used in a cosmetic composition. Br. 6-7. We agree with this argument as it pertains to claim 19<sup>7</sup> which comprises "an orally tolerable adjuvant," but not with respect to claim 18. As pointed out by the Examiner, the specification (at 6) discloses that nail varnish remover, which is well known to contain acetone, is a personal care product. Answer 5. Muhlbauer clearly teaches its compounds formulated with acetone (at 3, ll. 11-13). See, also Muhlbauer at 6: 33.<sup>8</sup> Consequently, a composition comprising an oxathiazole-2-one derivative in acetone as suggested by Muhlbauer meets the limitations of claim 18.

For the foregoing reasons, we find that the Examiner has provided sufficient evidence to establish unpatentability under 35 U.S.C. § 103 of the claimed subject matter. We have considered Appellants' evidence and arguments, but do not find them adequate to rebut the rejection. Accordingly, we affirm the rejection of claims 18 and 19.

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<sup>7</sup> However, for other reasons discussed *supra*, we find claim 19 to be obvious.

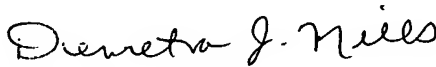
<sup>8</sup> The Examiner indicates that the compound in Example 9 falls within the scope of claims 18 and 19. Answer 4. Appellants do not challenge this finding. Example 9 shows the oxathiazole-2-one compound in acetone, albeit without revealing its concentration. Without knowing its concentration, there is insufficient evidence to determine whether this disclosure is anticipatory to claim 18, which requires that it be present in an amount "from 0.01 to 15% by weight, based on the total weight of the composition."



TIME PERIOD

No time period for taking any subsequent action in connection with  
this appeal may be extended under 37 C.F.R. § 1.136(a).

*AFFIRMED*



Demetra J. Mills )  
Administrative Patent Judge )



Eric B. Grimes )  
Administrative Patent Judge )



Richard M. Lebovitz )  
Administrative Patent Judge )

) BOARD OF PATENT

) APPEALS AND

) INTERFERENCES

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CIBA SPECIALITY CHEMICALS CORPORATION  
PATENT DEPARTMENT  
540 WHITE PLAINS RD  
P.O. BOX 2005  
TARRYTOWN, NY 10591-9005